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### **AMENDMENTS TO THE CLAIMS**

This listing of claims will replace all prior versions and listings of claims in the application.

#### **Listing of Claims:**

Please cancel claims 1-16.

Please add the following new claims:

17. (new) An isolated polynucleotide comprising:
  - (a) a nucleotide sequence encoding a polypeptide having cycloartenol synthase activity, wherein the amino acid sequence of the polypeptide and the amino acid sequence of SEQ ID NO:6 have at least 92% identity based on the Clustal method of alignment, or
  - (b) the complement of the nucleotide sequence, wherein the complement and the nucleotide sequence contain the same number of nucleotides and are 100% complementary.
18. (new) The polynucleotide of Claim 17, wherein the amino acid sequence of the polypeptide and the amino acid sequence of SEQ ID NO:6 have at least 95% identity based on the Clustal alignment method.
19. (new) The polynucleotide of Claim 17, wherein the polypeptide comprises the amino acid sequence of SEQ ID NO:6.
20. (new) The polynucleotide of Claim 17, wherein the nucleotide sequence comprises the nucleotide sequence of SEQ ID NO:5.
21. (new) A cell comprising the polynucleotide of Claim 17.
22. (new) The cell of Claim 21, wherein the cell is selected from the group consisting of a yeast cell, a bacterial cell and a plant cell.
23. (new) A transgenic plant comprising the polynucleotide of Claim 17.
24. (new) A method for transforming a cell comprising introducing into a cell the polynucleotide of Claim 17.
25. (new) A method for producing a transgenic plant comprising (a) transforming a plant cell with the polynucleotide of Claim 17, and (b) regenerating a plant from the transformed plant cell.

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26. (new) A chimeric gene comprising the polynucleotide of Claim 17 operably linked to at least one regulatory sequence.

27. (new) A vector comprising the polynucleotide of Claim 17.

28. (new) A seed comprising the chimeric gene of Claim 26.

29. (new) A method for isolating a polypeptide encoded by the polynucleotide of Claim 17 comprising isolating the polypeptide from a cell containing a chimeric gene comprising the polynucleotide operably linked to a regulatory sequence.